

Application No. 09/817,843
Amendment dated February 23, 2006
Reply to Office Action of November 23, 2005

IBM Ref.: END92000008US1

LISTING OF CLAIMS

1. (Currently Amended) An electronic package having selectively controlled contact pad - laminate surface adhesion comprising:

a ball grid array package further comprising:

a dielectric packaging substrate having a major surface;

a conductive foil laminated to said major surface wherein said foil has at least one side having a smooth portion thereof, and wherein said smooth portion contacts said major surface of said dielectric packaging substrate.

2. (Original) An electronic package having selectively controlled contact pad - laminate surface adhesion, according to claim 1, wherein said conductive foil comprises any conductive material selected from the group consisting of copper, aluminum, gold, silver, nickel, and chrome.

3. (Original) An electronic package having selectively controlled contact pad - laminate surface adhesion, according to claim 1, wherein said conductive foil comprises any material having high electrical conductivity.

4-16. (Cancelled).

17. (Currently Amended) A springboard contact pad - laminate surface contact structure comprising:

a ball grid array package further comprising:

a semiconductor packaging substrate having a major surface;

a first mechanically compliant dielectric layer formed over said major surface of said substrate and having at least one first opening formed therethrough;

a first electrical contact pad formed in said first opening and in electrical contact with said substrate;

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a second mechanically compliant dielectric layer formed over said first compliant layer and having at least one second opening formed therethrough wherein said second opening is substantially offset from said first opening;

a second electrical contact pad formed in said second opening and extending over a portion of said first electrical contact pad and contacting said first electrical contact pad;

a mask layer formed over said second compliant layer and having a third opening therethrough in communication with said second electrical contact pad; and

a solder ball solderably connected to said second electrical contact pad and extending through said third opening.

18. (Original). A springboard contact pad - laminate surface contact structure, according to claim 17, wherein said mask layer is a soldermask.

19. (Original). A springboard contact pad - laminate surface contact structure, according to claim 17, wherein said mechanically compliant layers comprises dielectric materials selected from the group consisting of photoresist, photoimageable dielectrics and prepreg.

20. (Original). A springboard contact pad - laminate surface contact structure, according to claim 17, wherein said electrical contact pads comprise highly conductive material selected from the group consisting of copper, copper foil, plated copper foil, and other suitable materials.

21. (Original). A springboard contact pad - laminate surface contact structure, according to claim 17, wherein said electrical contact pads comprise highly conductive material selected from the group consisting of aluminum, gold, silver, nickel, and chrome.

22-34 (Cancelled).

35. (Previously presented) An electronic package having selectively controlled contact pad - laminate surface adhesion, according to claim 1, wherein the smooth portion of the conductive foil has a surface roughness less than about 2.0 micron.

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36. (Previously presented) An electronic package having selectively controlled contact pad – laminate surface adhesion, according to claim 35, wherein the smooth portion of the conductive foil has a surface roughness less than about 1.0 micron.

37. (Previously presented) An electronic package having selectively controlled contact pad – laminate surface adhesion, according to claim 36, wherein the smooth portion of the conductive foil has a surface roughness less than about 0.01 micron.